



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/020,954	12/19/2001	Richard Hagarty	10014530-1	1135
22879	7590	03/01/2005	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			FLEARY, CAROLYN FATIMAH	
			ART UNIT	PAPER NUMBER
			2152	

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/020,954	HAGARTY ET AL.	
	Examiner Carolyn F. Fleary	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 12/19/2001.  
 2a) This action is FINAL.      2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-20 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
     1. Certified copies of the priority documents have been received.  
     2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
     3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 recites the limitation "said SAN Module" in line 2. There is insufficient antecedent basis for this limitation in the claim. Examiner will interpret "said SAN module" as said SAM Module

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Dunham et al. (US 6,854,035).

5. In regards to claim 1-5 7-14, 16-20, Dunham et al. discloses a method for managing a storage area network (SAN), comprising: connecting a SAN (fig1- SAN) including a plurality of devices (fig. 1-#12a-c; #14a-c; #16, col. 21 lines 44-51) to a computer (fig. 1- #20,col. 21 lines 28-32); providing a SAN manager (fig. 1-#20, fig. 3-#20, col. 21 lines 32-37, col. 23 lines 40-45) that is associated with a storage area mapping (SAM) module (fig. 3-#30, fig. 6-#38,40); graphically representing said devices (col. 25 lines 66-67, col. 26 lines 1-2, col. 53 lines 3-6) of said SAN and Links (i.e. interconnect fabric) between said devices (figs. 16-22,28-31) of said SAN (fig. 1) using said SAM module(fig. 3-#30, fig. 6-

Art Unit: 2152

#38); and allowing at least one of adding (i.e. assigning, col. 40 lines -40) a link between said devices, removing (i.e. unassign) a link between said devices and moving (col. 46 lines 66-67 , col. 47 lines 1-11) a link between said devices (col. 22 lines 48-54, col. 23 lines 23-26, col. 25 lines 41-45, col. 37 lines 20-30, col. 67 lines 28-46).

6. In regards to claim 11, Dunham et al. discloses, the method of claim 10 further comprising automatically discovering said devices and said links of said SAN (fig. 1) using a discovery module (fig. 6-#60) that is associated with said SAN manager (fig. 6-#20) (col. 26 lines 9-25; 38-42; 52-67, col. 38 lines 14-32).

7. In regards to claim 12, Dunham et al. discloses, the method of claim 11 further comprising generating a window with a tree list panel of said SAN (fig.-#16; #28, fig. 26, col. 48 lines 49-53, col. 52 lines 25; 34-45) and said devices that are associated with said computer and a map panel (fig. 29-31, col. 53 lines 1-18;25-30;45-62).

8. In regards to claim 13, Dunham et al. discloses the method of claim 12 further comprising providing a tool bar (fig. 29-#176-#178,fig. 30#190-192, fig. 31-#202) including a plurality of icons (fig. 29-#182-86) a first display (fig. 29) area and a second display (fig. 30-31, col. 36 lines 45-56) area on said map panel.

9. In regards to claim 14, Dunham et al. discloses, the method of claim 13 further comprising: displaying a map of said devices with defined links (i.e. Normal, New) in said first display area; and displaying said devices with undefined links (i.e. Broken missing) (fig. 17>Status, col. 47 lines 36-67, col. 48 lines 1-36) in said second display area (fig. 26, col. 48 lines 49-59, fig. 17).

Art Unit: 2152

10. In regards to claim 16, Dunham et al. discloses the method of claim 10 further comprising: displaying a device type of said devices using shapes(fig. 17-#104, fig. 18-#112a); and displaying a device status of said devices using color (col. 48 lines 53-56).

11. In regards to claim 17 Dunham et al. discloses the method of claim 10 further comprising: displaying a link type of said links using line segments types (fig. 26, fig. 29-31); and displaying a link status of said links using color(col. 48 lines 53-56).

12. In regards to claim 18. The method of claim 10 further comprising allowing an operator to associate a discovered device with an inferred hub (col. 47-Table i.e. broken, not valid, needs attention). Dunham et al. in the Table of col. 47-48 indicates the results of information acquired by a discover module. The table provides the status of all devices on the network including those for which the exact topology cannot be ascertained (i.e. broken, needs attention, not valid). A conflict resolution mechanism provided by Dunham et al. would allow a discovered device to be associated with a device for which the exact topology cannot be ascertained (i.e. inferred hub) (see Dunham et al. col. 40 lines 22-45 Col. 40-41 -Problem Scenarios).

13. In regards to claim 1, Dunham et al. discloses a storage area network (SAN) management system for a computer network including at least one SAN, comprising: a SAN (fig. 1) including a plurality of devices(fig. 1-#12a-c; #14a-c; #16, col. 21 lines 44-51);  
a computer (fig. 1-20) that communicates with said SAN;

Art Unit: 2152

a SAN manager associated with said computer (fig. 1-#20, fig. 3-#20, col. 21 lines 32-37, col. 23 lines 40-45); and  
a storage area mapping (SAM) module (fig. 3-#30, fig. 6-#38,40) associated with said SAN manager that graphically represents said devices of said SAN and links between said devices (col. 25 lines 66-67, col. 26 lines 1-2, col. 53 lines 3-6), wherein said SAM module (fig. 3-#30, fig. 6-#38,40) allows at least one of adding a link between said devices (i.e. assigning, col. 40 lines -40), removing (i.e. unassign) a link between said devices and moving a link between said devices (i.e. unassigning then assigning) (col. 22 lines 48-54, col. 23 lines 23-26, col. 25 lines 41-45, col. 37 lines 20-30, col. 67 lines 28-46).

14. In regards to claim 2, Dunham et al. discloses the SAN management system of claim 1 further comprising a discovery module (fig. 6-#60) associated with said SAN module (fig. 3-#30, fig. 6-#38,40) that automatically discovers said devices and said links of said SAN (col. 26 lines 9-25; 38-42; 52-67, col. 38 lines 14-32).

15. In regards to claim 3 Dunham et al. discloses the SAN management system of claim 2 wherein said SAM module generates a window with a tree list panel (fig.-#16; #28, fig. 26, col. 48 lines 49-53, col. 52 lines 25; 34-45) and a map panel (fig. 29-31, col. 53 lines [1-18;25-30;45-62]).

16. In regards to claim 4 Dunham et al. discloses the SAN management system of claim 3 wherein said map panel includes a tool bar (fig. 29-#176-#178, fig. 30-#190-192, fig. 31-#202) with a plurality of icons (fig. 29-#182-86), a first display (fig. 29) area and a second display area (fig. 30-31, col. 36 lines 45-56).

Art Unit: 2152

17. In regards to claim 5, Dunham et al. discloses the SAN management system of claim 4 wherein said SAM module displays a map of said devices with defined links(i.e. Normal, New) in said first display area and said devices with undefined links (i.e. Broken missing) (fig. 17-Status, col. 47 lines 36-67, col. 48 lines 1-36) in said second display area (fig. 26, col. 48 lines 49-59, fig. 17).
18. In regards to claim 7, Dunham et al. discloses the SAN management system of claim 1 wherein said SAM module displays a device type of said devices using shapes(fig. 17-#104, fig. 18-#112a) and a device status of said devices using color(col. 48 lines 53-56).
19. In regards to claim 8, Dunham et al. discloses the SAN management system of claim 1 wherein said SAM module displays link types of said links using line segment types (fig. 26, fig. 29-31) and link status of said links using color (col. 48 lines 53-56).
20. In regards to claim 9, Dunham et al. discloses the SAN management system of claim 1 wherein said SAM module allows an operator to associate a discovered device with an inferred hub (col. 47-Table i.e. broken, not valid, needs attention). Dunham et al. in the Table of col. 47-48 indicates the results of information acquired by a discover module. The table provides the status of all devices on the network including those for which the exact topology cannot be ascertained (i.e. broken, needs attention, not valid). A conflict resolution mechanism provided by Dunham et al. would allow a discovered device to be associated with a device for which the exact topology cannot be ascertained (i.e. inferred hub). (see Dunham et al. col. 40 lines 22-45 Col. 40-41 –Problem Scenarios)

Art Unit: 2152

21. In regards to claim 19 Dunham et al. discloses a storage area network (SAN) management system for a computer network including at least one SAN, comprising: a SAN including a plurality of devices (fig. 1-#12a-c; #14a-c; #16, col. 21 lines 44-51); a computer (fig. 1-20) that communicates with said SAN; and a SAN manager associated with said computer (fig. 1-#20, fig. 3-#20, col. 21 lines 32-37, col. 23 lines 40-45); a discovery module (fig. 6-#60) associated with said SAN manager (fig. 3-#30, fig. 6-#38,40) that automatically discovers said devices and said links of said SAN (col. 26 lines 9-25; 38-42; 52-67, col. 38 lines 14-32); and a storage area mapping (SAM) module (fig. 3-#30, fig. 6-#38,40) associated with said SAN manager that graphically represents said devices of said SAN and said links between said devices (col. 25 lines 66-67, col. 26 lines 1-2, col. 53 lines 3-6), wherein said SAM module allows at least one of adding a link between said devices (i.e. assigning, col. 40 lines -40), removing a link between said devices (i.e. unassign) and moving a link between said devices (i.e. unassigning then assigning) (col. 22 lines 48-54, col. 23 lines 23-26, col. 25 lines 41-45, col. 37 lines 20-30, col. 67 lines 28-46).

22. In regards to claim 20, Dunham et al. discloses the SAN management system of claim 19 wherein said SAM module allows an operator to associate a discovered device with an inferred hub (col. 47-Table i.e. broken, not valid, needs attention). Dunham et al. in the Table of col. 47-48 indicates the results of information acquired by a discover module. The table provides the status of all devices on the network including those for which the exact topology cannot be ascertained (i.e. broken, needs attention, not valid). A conflict resolution mechanism provided by Dunham et al. would allow a discovered device to be associated

Art Unit: 2152

with a device for which the exact topology cannot be ascertained (i.e. inferred hub). (see Dunham et al. col. 40 lines 22-45 Col. 40-41 –Problem Scenarios).

***Claim Rejections - 35 USC § 103***

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. Claim 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunham et al. (US 6,854,035) as applied to claim 1 and 10 respectively above, and further in view of Walker et al. (US 6,594,696).

25. In regards to claim 6 and 15 Dunham et al. teaches using a pointing device (i.e. click by way of mouse) on icons/links that provide addition details (col. 9 lines 66-67, col. 10 lines 1-8, col. 36 lines 45-56 col. 52 lines 8-14) by selecting a link or icon. However Dunham et al. fails providing a pointing device generating link details of a first link when a cursor is positioned over said first link for a first predetermined period; and generating device details of a first device when a cursor is positioned over said first device for a second predetermined period.

Walker et al. (US 6,594,696) teaches management of a network via a graphical user interface (fig. 3) that displays graphical representation of devices on a network and communications lines (i.e. links) connecting the devices (col. 4 lines 7-12). A cursor stopping for a predetermined time period over objects (devices and communication See col.4 lines 33-35) results in the display of details on the objects (col. 4 lines 47-54, fig 3-5). One of ordinary skill in the art at the time of invention would have clearly recognized that it

Art Unit: 2152

is quite advantageous for the system of Dunham et al. to have to have the generation of additional details upon positioning a cursor above a link or device, as taught by Walker et al. in order to allow for quicker and simpler system to use and provide detailed information which may be required by a network manager (See Walker col. 3 lines 5-16).

### ***Conclusion***

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

### **Storage Area Network Management**

- Kitamura; Manabu et al. (US 6854034) Computer system and a method of assigning a storage device to a computer
- Muthiyan; Abhijit et al. (US 6839746) Storage area network (SAN) device logical relationships manager
- Harnois; Stephane et al. (US 6792473) Giving access to networked storage dependent upon local demand
- Dobberpuhl; Walter T. et al. (US 6754718) Pushing attribute information to storage devices for network topology access
- Nolan; Shari J. et al. (US 6640278) Method for configuration and management of storage resources in a storage network
- Devireddy; Narayan et al. (US 6519679) Policy based storage configuration
- Vook; Eric R. et al. (US 6496914) Method and system for administering storage devices on a network Pothapragna;

Art Unit: 2152

- Srinivas et al. (US 6389432) Intelligent virtual volume access

### **Graphical User Interfaces and Pointers**

- Lyndon; Troy A. (US 6693648) Pointer interactive apparatus
- Malamud; Mark A. et al. (US 6606101) Information pointers
- Arquie et al. (US 6,836,275) Method for Distinguishing Between Single and Multiple Connections in A Network Topology

### **Graphical User Interfaces and Network Topology**

- Humpleman; Richard et al. (US 6801507) Device discovery and configuration in a home network
- Gundavelli; Srinath (US 6795403) Automatic discovery of switch devices in a network

### **Network representation of devices (i.e. appearance, human interaction)**

- Bazerman; Mark L. et al. (US 6850253) Representing network link and connection information in a graphical user interface suitable for network management
- Huang; Ye et al. (US 6714217) System and method for providing a graphical user interface to, for building, and/or for monitoring a telecommunication network
- Rochford; Suzanne L. et al. (US 6633312) Method and apparatus for selecting network entities
- Eick; Stephen Gregory et al. (US 6154212) Method and apparatus for constructing network interfaces
- Langfahl, Jr.; J. Craig (US 6031528) User based graphical computer network diagnostic tool

Art Unit: 2152

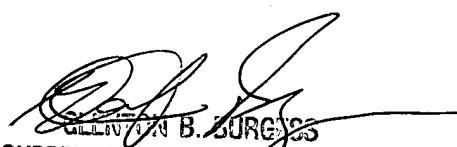
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn F. Fleary whose telephone number is (571) 572-7218. The examiner can normally be reached on 8:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Carolyn F Fleary  
Examiner  
Art Unit 2152

CFF



GLLENTON B. BURGESS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER: \_\_\_\_\_**

**IMAGES ARE BEST AVAILABLE COPY.**

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.